

## REMARKS

This application pertains to a novel method for bonding electrical modules to card bodies.

Claims 2-6 and 8 are pending.

In the Advisory Action, the Examiner indicates that he maintains the rejection because:

The adhesive disclosed in Copperwheat is obvious for use in Watada to bond a chip module in a card body because Watada calls for an adhesive for polyester substrates and Copperwheat discloses the adhesive is useful for polyester substrates. The use of the adhesive in Watada still bonds the chip to the card body.

The Examiner's attention is respectfully drawn to the specific language of the Watada reference from Col. 5, line 19 - Col. 6, line 9.

There the Examiner will see that Watada, in discussing what is shown in his **Figure 1**, indicates that unstretched polyester sheets 2 having a thickness of 125  $\mu\text{m}$  are laminated to both sides of a polyester film 1 having a thickness of 500  $\mu\text{m}$ .

This would produce a laminate of  $2 \times 125 + 500 = 750 \mu\text{m}$ .

Next, Watada discusses what is shown in his Figure 2. Here Watada describes two sheets of a stretched polyester film 1 having a thickness of 275  $\mu\text{m}$  being laminated together, and unstretched polyester sheets 2 having a thickness of 100  $\mu\text{m}$  are laminated on to both sides of the laminate of the stretched polyester film.

This would produce a laminate of  $2 \times 275 + 2 \times 100 = 750 \mu\text{m}$ .

Next, Watada discusses what is shown in his Figure 3. Here Watada describes three sheets of stretched polyester film 1 having a thickness of 188  $\mu\text{m}$  being laminated together, and unstretched polyester sheets 2 having a thickness of 100  $\mu\text{m}$  being laminated to both sides of the laminate of the stretched polyester film.

This would produce a laminate of  $3 \times 188 + 2 \times 100 = 764 \mu\text{m}$ .

And then Watada, referring to his Figures 4a and 4b, describes that a cavity is formed by milling, conducted in two steps to the depths of 150  $\mu\text{m}$  and 650  $\mu\text{m}$  from the surface of the card.

This would produce a cavity of  $150 + 630 = 780 \mu\text{m}$ .

According to these examples, the depth of the cavity is greater than the thickness of any of the cards, and the cavity would pass completely through the card body, from one side to the other, essentially forming a "hole" through the card body into

which the chip module would be inserted.

Referring now to Watada's Figure 4(b) one can see chip module 4 (see Col. 6, line 4 for the designating number for the chip module) inserted about half-way into the thickness of stretched polyester film 1 (see Col 5, line 27 for the designating number).

Therefore, in one case the cavity for the chip module is open at both ends, and there is no adhesive bonding of the module in the cavity.

In the second case, the chip module is embedded into the depth of the stretched polyester film 1, and goes right through and past any adhesive that might be used to bond the two layers of stretched polyester film 1 together.

Clearly, the Examiner's contention that "The use of the adhesive in Watada still bonds the chip to the card body" is not correct as there is absolutely nothing in Watada that teaches or suggests that a chip be bonded to a card body using an adhesive. More correctly, Watada clearly illustrates that no adhesive is used in the cavity.

Applicants' claims, which require that their chip modules be bonded in the card bodies with a sheet of Applicants' adhesive system, clearly are neither anticipated by nor obvious over anything that could be found in Watada, either alone or in combination with Copperwheat or Uno. Copperwheat and Uno, without Watada, do not have anything to do with card bodies having chip modules embedded therein, and so the

rejection of claim 4 as obvious over Copperwheat in view of Uno makes no sense at all (claim 4 depends from claim 5, and therefore clearly concerns the bonding of chip modules into card bodies).

Accordingly, the rejection of claims 2, 3, 5, 6 and 8 under 35 U.S.C. 103(a) as obvious over Copperwheat (U.S. 6,846,759), as applied to claim 1 above, and in view of Watada (U.S. 6,012,64) should now be withdrawn, and the rejection of claim 4 under 35 U.S.C. 103(a) as obvious over Copperwheat (U.S. 6,846,759), as applied to claim 1 above, and in view of Uno (U.S. 4,065,439) should also now be withdrawn.

In view of the present amendments and remarks it is believed that claims 2 - 6 and 8 are now in condition for allowance. Reconsideration of said claims by the Examiner is respectfully requested and the allowance thereof is courteously solicited.

#### CONDITIONAL PETITION FOR EXTENSION OF TIME

If any extension of time for this response is required, Applicants request that this be considered a petition therefor. Please charge the required petition fee to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fee or credit any excess to Deposit Account  
No. 14-1263.

Respectfully submitted,  
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